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Tropidechis carinatus (Rough-scaled Snake) and Pseudechis porphyriacus (Red-bellied Black Snake). Predation/ Diet

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TACHYMENIS CHILIENSIS CHILIENSIS (Southern Short-tailed Snake). DIET. *Tachymenis chiliensis chiliensis* is a small (total length ca. 700 mm), terrestrial, viviparous, and diurnal species with a restricted distribution to central Chile and a small area of northwestern Patagonia in Argentina (Avila et al. 2012 Cuad. Herpetol. 26:1–2). *Tachymenis* species are known to feed mainly on amphibians and lizards (Miranda et al. 2015. Herpetol. Rev. 46:651). On 20 September 2011, we received an adult *T. c. chiliensis* (SVL = 472 mm, total length = 557 mm) collected at El Pinar (Roberts) Farm, along National Road 259 (42.9188°S, 71.3419°W, WGS 84; 570 m elev.), in the suburban area of Esquel city, Futaleufú Department, Chubut Province, Argentina. Upon dissection, we discovered two adult male lizards (*Liolaemus bibronii*) in the snake's stomach (swallowed head first; SVLs = 48.0, 59.5 mm). *Liolaemus bibronii* is a typical inhabitant of Patagonian Steppe environments and its predators are other lizards, snakes, or birds. To our knowledge this is the first record of *T. c. chiliensis* preying on this species. The snake and lizards are deposited in the Herpetological Collection of the IPEEC-CENPAT, in Puerto Madryn, Chubut, Argentina (LJAMM-CNP 14448 and 8483–8484).

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TANTILLA PLANICEPS (Western Black-headed Snake). REPRODUCTION. *Tantilla planiceps* occurs along the Pacific Coast from the vicinity of San Francisco, California, to the tip of Baja California, Mexico (Ernst and Ernst 2003. Snakes of the United States and Canada. Smithsonian Books, Washington, D.C. 668 pp.). Information on the reproduction of *T. planiceps* is limited to clutches of 1–4 eggs deposited May–June (Brown 1997. A Field Guide to Snakes of California. Gulf Publishing Company, Houston, Texas. 215 pp.; Stebbins 2003. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, Massachusetts. 533 pp.; Stebbins and McGinnis 2012. Field Guide to Amphibians and Reptiles of California, University of California Press, Berkeley. 538 pp.). The purpose of this note is to add information on events in the ovarian cycle of *T. planiceps*.

One *T. planiceps* female (SVL = 273 mm, tail length = 82 mm) collected in San Diego County, California on 6 July 1979 and deposited in the herpetology collection of the San Diego Natural History Museum (SDNHM), San Diego, California as SDNMH 68875 was examined. Two oviductal eggs were present in the right oviduct. My finding extends the period in which *T. planiceps* carries eggs from May into July.

I thank Brad Hollingsworth (SDNHM) for permission to examine the *T. planiceps*.

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THAMNOPHIS CYRTOPSIS (Black-necked Gartersnake). DIET AND SEASONAL ACTIVITY. On 12 November 2014, while radio tracking *Lithobates chiricahuensis* (Chiricahua Leopard Frog) in the Santa Rita Mountains, Santa Cruz and Pima counties, Arizona, USA, we discovered telemetered frogs at two separate sites had been consumed by *Thamnophis cyrtopsis*. At 1531 h, in Gardner Canyon (31.71155°N, 110.75695°W, NAD 83; 1541 m elev.), we followed a transmitter signal beneath a large rock on a steep slope, approximately 15 m from a large pool in the stream channel, and found an adult *T. cyrtopsis* (SVL = 500 mm, 74 g) with a bulge in its midsection. The snake had consumed a telemetered frog (female, SVL = 64 mm, 22 g). At the time we observed the snake, air temperature was 19.6°C. The lowest air temperature recorded by the air and water temperature loggers (4 h interval) at the site the week prior to our observation was 2.6°C. On the same day at 1750 h, at an earthen stock tank near Greaterville, Arizona (31.76755°N, 110.75961°W, NAD 83; 1625 m elev.), we tracked an adult female *L. chiricahuensis* (SVL = 70 mm, 37 g) to tall grass beneath a mesquite tree near the tank. We found an adult *T. cyrtopsis* (SVL = 650 mm, 220 g) had ingested the frog. At the time of observation, air temperature was 15.3°C. The week before, the minimum recorded air temperature was 4.8°C. Both snakes were captured and held until each had evacuated the transmitters. On 03 December 2014, at 1330 h, in Gardner Canyon ca. 70 m south of the first observation, we heard an alarm call coming from within a root mass overhanging a large pool, and found a juvenile *T. cyrtopsis* (total length ca. 400 mm), in the water, ingesting a juvenile *L. chiricahuensis* (SVL ca. 40 mm). At the time of the observation, air temperature was 18.5°C and water temperature was 14.1°C. At the site the week prior, the minimum recorded air temperature was -0.5°C.

Although *T. cyrtopsis* has been collected in Arizona during almost every month, most activity appears to be from April through September (T. R. Jones, pers. comm.), consistent with Rossman et al. (1996. The Garter Snakes: Evolution and Ecology. University of Oklahoma Press, Norman. 332 pp.) who suggested that *T. cyrtopsis* has a shorter activity season than many other south-temperate gartersnakes. Among 984 Arizona museum records, only six were taken in November and none in December (T. R. Jones, pers. comm.). Our observations confirm that *T. cyrtopsis*, at least at higher elevations, remain active and even continue to forage, despite near-freezing temperatures.

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TROPIDECHIS CARINATUS (Rough-scaled Snake) and PSEUDECHIS PORPHYRIACUS (Red-bellied Black Snake). PREDATION / DIET. *Tropidechis carinatus* is a medium-sized elapid snake that occurs along the east coast of Queensland and New South Wales, Australia. Although *T. carinatus* can be found in similar habitats as *Pseudechis porphyriacus*, the former is primarily diurnal, whereas the latter is more nocturnal. Both species feed mostly on amphibians and reptiles, and occasionally on birds and mammals (Cogger 2014. Reptiles and Amphibians of Australia, 7th ed. CSIRO, Collingwood, Victoria. 1033 pp.). *Pseudechis porphyriacus* has been documented eating other snakes, but rarely have interactions between these two species been documented in the wild.

At 1045 h on 7 April 2007, at the Carbine Tableland (16.45203°N, 145.18994°W, WGS 84; 1093 m elev.), North



FIG. 1. *Pseudechis porphyriacus* attacking a *Tropidechis carinatus* in North Queensland, Australia.

Queensland, Australia, we observed a *P. porphyriacus* (total length ca. 1.5 m) attacking and trying to depredate a *T. carinatus* (total length ca. 1 m). When we first encountered the snakes, both had the anterior halves of their bodies within a rocky den, with their tails entangled outside. Approximately one minute following the encounter, the *T. carinatus* emerged from the den with the *P. porphyriacus* gripping it strongly with its jaws on the right lateral aspect of its body, approximately 20% of its body length below the head. The *T. carinatus* tried to escape by crawling away, but the *P. porphyriacus* did not release the lock-bite for approximately 30 sec. Following this interaction, the *P. porphyriacus* may have become aware of our presence, and released the *T. carinatus*. The *T. carinatus* proceeded to move away from the area to a protected den adjacent to the point of original observation. The duration of the interaction, from the first time point when we discovered the snakes, to the escape of the *T. carinatus*, lasted 5 min. Because the *T. carinatus* sought refuge in a den, we were not able to observe whether it recovered from its bite and possible envenomation by the *P. porphyriacus*.

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TROPIDOLAEMUS SUBANNULATUS (Northern Temple Pit Viper). **MORPHOLOGY.** *Tropidolaemus subannulatus* usually have a yellow-orange to red-orange iris. On 25 August 2015, a *T. subannulatus* was found at Brgy, San Roque, Bulusan, Sorsogon, Philippines, that had a white iris (Fig. 1A). To our knowledge, the

only other record of a white iris in this species was an individual photographed in 2007 (Fig. 1B), that was supposedly from Luzon Island, Philippines (Gernot Vogel, pers. comm.). However, this individual had some black speckles on its iris. This iris coloration might represent a previously unreported form of sexual dimorphism, as the two individuals reported here were males, or just a form of mutation.

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VIPERA ASPIS HUGYI (South-Italian Asp Viper). **DIET.** An adult male *V. aspis hugyi* (SVL = 453 mm, tail length = 48 mm) was caught on 19 April 2016 at 0953 h in a garrigue (40.07032°N, 18.47199°E, WGS 84; elev. 103 m) 4 km NE of Santa Cesarea Terme, Lecce Province, southeastern Italy. When caught, the snake regurgitated a subadult *Scolopendra cingulata* (Mediterranean Banded Centipede; total length = 55 mm). The centipede was preserved in the collections of the Natural History Museum of Salento. The diet of *V. aspis hugyi* is known to include rodents, lacertids, small birds, amphibians, and insects (Rotolo 1980. Rettili di Puglia. Schena Editore, Fasano di Brindisi. 125 pp.; Basso and Calasso. 1991. I Rettili della Penisola Salentina. Edizioni del Grifo, Lecce. 63 pp.; Fattizzo 1996. Anfibi e Rettili della Penisola Salentina. Progetto Physis, Latiano. 126 pp.; Lo Valvo and Longo 2001. Anfibi e Rettili in Sicilia. WWF Sezione Sicilia, Palermo. 85 pp.; Nitti 2011. Rettili e Anfibi di Puglia. Grafiche Vito Radio Editore, Castellana Grotte. 157 pp.). Our observation represents the first record of predation on a centipede by this subspecies. We thank Antonio Durante (Calimera) for the identification of the centipede.

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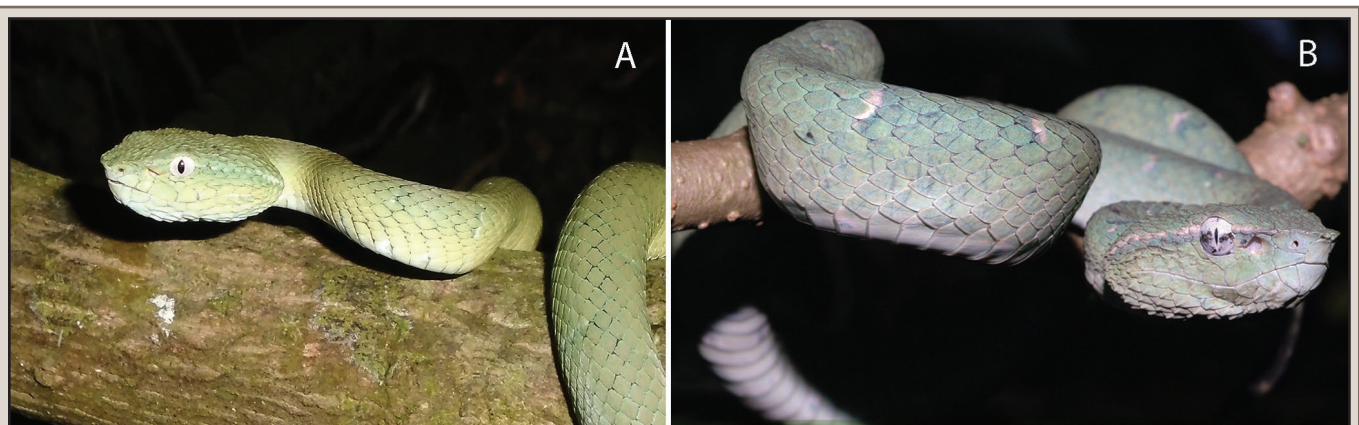


FIG. 1. A) *Tropidolaemus subannulatus* with white iris from Brgy, San Roque, Bulusan, Sorsogon, Philippines; and B) *T. subannulatus* with a speckled-white iris from Luzon Island, Philippines.

PHOTO (B) BY G. VOGEL